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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/709,829	11/10/2000	James J. Fort	6488.US.02	3590

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EXAMINER
RUSSEL, JEFFREY E

ART UNIT	PAPER NUMBER
1654	10

DATE MAILED: 01/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/709,829	Applicant(s) FORT ET AL.	
	Examiner Jeffrey E. Russel	Art Unit 1654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 August 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,5-11 and 19-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,5-11 and 19-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 November 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *9* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

1. The disclosure is objected to because of the following informalities: The specification at page 11, lines 11-15, was amended without the submission of an entire replacement paragraph as required by 37 CFR 1.121(b)(1). The amendment needs to be re-submitted in proper format. It also appears that in the correction intended to be made by Applicants, the occurrence of "-amino" before "-1,6-diphenyl" should be deleted. Appropriate correction is required.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 2, 5, 7-11, and 19-29 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no original disclosure supporting the claim limitation requiring the HIV protease inhibitors in general, or the specific HIV inhibitors other than ABT-538, to be in amorphous form. The only original disclosure of amorphous protease inhibitors that the examiner has been able to locate is in the headings and the brief descriptions of Figures 1 and 2, and this disclosure is limited to the specific protease inhibitor ABT-538 (i.e. ritonavir). There is no discussion of the significance of this form of ABT-538, there is no disclosure that other protease inhibitors should have the same form as ABT-538, and thus there is no basis for inferring that other HIV protease inhibitors should or can be in an amorphous form. The original disclosure contains no indication that Applicants contemplated that HIV protease inhibitors in general, or that specific HIV protease inhibitors other than ABT-538, should be in an amorphous form. Applicants did not indicate in their

response where the original disclosure supports the new claim limitations. New claims 22-29 are drawn to dispersions generally, rather than requiring solid dispersions. However, the original disclosure of the invention, as set forth in the title, technical field of the invention, summary and detailed description of the invention, the original claims, and the abstract is limited to solid dispersions. Hence, the broadened claim limitations of the new claims are not supported by the original disclosure of the invention. Applicants did not indicate in their response where the original disclosure supports the new claim limitations.

3. Claims 5, 8, 20, 21, and 24-27 are objected to because of the following informalities: At claim 5, line 3, the underlining below the hyphen should be removed. At claim 5, lines 6 and 9; claim 8, line 4; claim 20, line 5; claim 21, line 4; claim 24, line 2; and claim 26, line 4; the numeral "1" occurring before "-tetrahydro" and before "-(-4-3-pyridylmethyl" has been changed to a capital letter "I". At claim 5, page 3 of the amendment filed August 26, 2002, lines 3-4, "butyl" should be re-written as one word. At claim 5, page 3 of the amendment, lines 9-10, "thiazolidine" should be re-written as one word. At claim 5, page 3 of the amendment, line 11, one of the first two beginning brackets is unmatched. At claim 5, page 3 of the amendment, line 12, a hyphen should be re-inserted between the numeral "2" and "quinolinylcarbonyl". All of the compound names should be reviewed for accuracy in spelling and punctuation. Appropriate correction is required.

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1, 2, 5, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by the Aungst et al article (Int. J. Pharmaceutics, Vol. 156, pages 79-88). The Aungst et al article

teaches a solid dispersion of DMP 323, an HIV protease inhibitor, in PEG or PEG PVP matrices. A surfactant can also be present. See, e.g., the Abstract and Table 2. Because the solid dispersions of the Aungst et al article are prepared by solvent evaporation (see section 3.3) as are Applicants' solid dispersions, because the same water soluble carriers are used by the Aungst et al article as are claimed by Applicants, and because no special steps are taken by the Aungst et al article to produce DMP 323 in crystalline form, the DMP 323 in the solid dispersions of the Aungst et al article is deemed inherently to be in amorphous form to the same extent claimed by Applicants. Sufficient evidence of similarity is deemed to be present between the solid dispersions of the Aungst et al article and Applicants' claimed solid dispersions to shift the burden to Applicants to provide evidence that the claimed solid dispersions are unobviously different than those of the Aungst et al article.

6. Claims 1, 2, 5, 9, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by the Aungst et al article (B.T. Gattetosse, Vol. 87, pages 49-54). The Aungst et al article teaches a solid dispersion of DMP 323, an HIV protease inhibitor, in PEG. The solid dispersion can optionally comprise a surfactant. The solid dispersion is formed by solvent evaporation using a 50% ethanol:50% methylene chloride solvent. The solid dispersion is encapsulated in a hard gelatin capsule. See, e.g., the paragraph bridging pages 49 and 50 and Table 2. Because the solid dispersions of the Aungst et al article are prepared by solvent evaporation (see page 50, column 2, last paragraph) as are Applicants' solid dispersions, because the same water soluble carriers are used by the Aungst et al article as are claimed by Applicants, and because no special steps are taken by the Aungst et al article to produce DMP 323 in crystalline form, the DMP 323 in the solid dispersions of the Aungst et al article is deemed inherently to be in amorphous form

to the same extent claimed by Applicants. Sufficient evidence of similarity is deemed to be present between the solid dispersions of the Aungst et al article and Applicants' claimed solid dispersions to shift the burden to Applicants to provide evidence that the claimed solid dispersions are unobviously different than those of the Aungst et al article.

7. Claims 1, 2, 5, 6, 9, 11, 19, 20, 22, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Al-Razzak et al (U.S. Patent No. 5,610,193). Al-Razzak et al teach a solid dispersion comprising compound III, i.e. ritonavir, in polyethylene glycol. See column 3, lines 29-33. Al-Razzak et al also teach a mixture of a pharmaceutically acceptable organic solvent (such as polyethylene glycol or preferably propylene glycol, both of which are water-soluble), an HIV protease inhibitor (which is preferably ritonavir), and an organic acid adsorbed onto a pharmaceutically acceptable adsorbent, optionally encapsulated in a hard gelatin capsule and optionally combined with a surfactant or an antioxidant. The compositions are administered to inhibit HIV infection and to treat AIDS in humans. See, e.g., column 3, lines 1-21; column 3, line 60 - column 4, line 48; column 4, line 56 - column 5, line 5; column 6, lines 19-32; column 29, lines 50-63; and claim 3. Note that the pharmaceutically acceptable adsorbent required by the compositions of Al-Razzak et al is permitted by the "comprising" language used by Applicants to define their claimed compositions. Because the compositions of Al-Razzak et al are prepared by solvent evaporation (see, e.g., column 9, lines 42-64) as are Applicants' solid dispersions, because the same water soluble carriers are used by Al-Razzak et al as are claimed by Applicants, and because no special steps are taken by Al-Razzak et al to produce its HIV protease inhibitors in crystalline form, the HIV protease inhibitors in the compositions of Al-Razzak et al are deemed inherently to be in amorphous form to the same extent claimed by

Applicants. Sufficient evidence of similarity is deemed to be present between the compositions of Al-Razzak et al and Applicants' claimed solid dispersions to shift the burden to Applicants to provide evidence that the claimed solid dispersions are unobviously different than those of Al-Razzak et al.

8. Applicant's arguments filed August 29, 2002 have been fully considered but they are not persuasive.

The anticipation rejection based upon the Aungst et al article (Int. J. Pharmaceutics, Vol. 156, pages 79-88) is maintained. While Applicants argue that the dispersion of the Aungst et al article "does not comprise DMP323 in amorphous form", the examiner can find no statement in the Aungst et al article that its HIV protease inhibitor is in a non-amorphous, e.g., crystalline, form. Section 3.3 and Table 2, cited, by Applicants, are silent as to the form of the HIV protease inhibitor. The Aungst et al article's disclosure of the bioavailability of its solid dispersion, or the article's characterization of its dispersion as unsuccessful, do not avoid the anticipation rejection, because Applicants' claims do not contain any limitations which would distinguish the prior art dispersions on this basis. Patentability must be based upon claimed, not unclaimed, differences over the prior art. The obviousness rejection of claim 19 based upon the Aungst et al article is withdrawn. Because the Aungst et al article describes its PEG solid dispersions as being "unsuccessful", at least for the tested drug concentrations, there would be no motivation to administer these compositions in vivo.

The anticipation rejection based upon the Aungst et al article (B.T. Gattetosse, Vol. 87, pages 49-54) is maintained for reasons analogous to those set forth in the above paragraph. The

obviousness rejections based upon the Aungst et al article are withdrawn for reasons analogous to those set forth in the above paragraph.

The anticipation rejection based upon Al-Razzak et al (U.S. Patent No. 5,610,193) is maintained for reasons analogous to those set forth in the above paragraph with respect to the Aungst et al article (Int. J. Pharmaceutics, Vol. 156, pages 79-88). However, it should be noted that this anticipation rejection is based, in the alternative, upon Al-Razzak et al's disclosure of the background of the invention at column 3, lines 29-33, and upon Al-Razzak et al's disclosure of their own invention at column 3, line 60+. Applicants' remarks did not address why Al-Razzak et al's inventive compositions do not anticipate and/or suggest Applicants' claimed invention. Note that Al-Razzak et al's inventive compositions are presumably useful for the oral administration of HIV protease inhibitors.

The obviousness rejection under 35 U.S.C. 103(a) based upon Al-Razzak et al (U.S. Patent No. 5,610,193) in view of Sham et al is withdrawn in view of the new claim limitations requiring the HIV protease inhibitors to be in an amorphous form. The references do not describe their active agents as being in an amorphous form, and the references do not provide any motivation or suggest any benefit in using amorphous active agents to form the compositions of Al-Razzak et al. If the claim limitation "amorphous" is deleted in response to the rejection under 35 U.S.C. 112, first paragraph, set forth in paragraph 2 above, the examiner will have to consider the propriety of re-instating this rejection.

The rejection under 35 U.S.C. 103(a) based upon the WO Patent Application '499 in view of the Aungst et al article (B.T. Gattetosse, Vol. 87, pages 49-54) or Al-Razzak et al (U.S. Patent No. 5,610,193) is withdrawn in view of the new claim limitations requiring the HIV protease

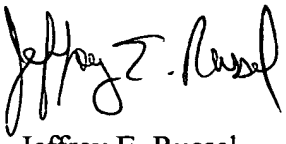
inhibitors to be in an amorphous form. The references do not describe their active agents as being in an amorphous form, and the references do not provide any motivation or suggest any benefit in using amorphous active agents to form the compositions of the WO Patent Application '499. If the claim limitation "amorphous" is deleted in response to the rejection under 35 U.S.C. 112, first paragraph, set forth in paragraph 2 above, the examiner will have to consider the propriety of re-instating this rejection.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey E. Russel at telephone number (703) 308-3975. The examiner can normally be reached on Monday-Thursday from 8:30 A.M. to 6:00 P.M. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Brenda Brumback can be reached at (703) 306-3220. The fax number for Art Unit 1654 for formal communications is (703) 305-3014; for informal communications such as proposed amendments, the fax number (703) 746-5175 can be used. The telephone number for the Technology Center 1 receptionist is (703) 308-0196.



Jeffrey E. Russel

Primary Patent Examiner

Art Unit 1654

JRussel

January 15, 2003